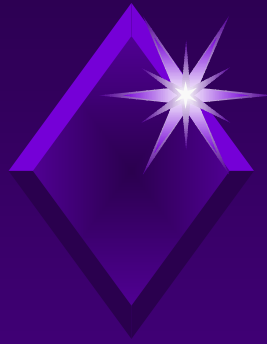


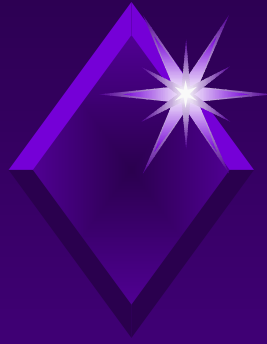
# *The Security of Electronic Banking*

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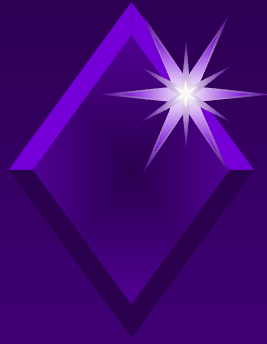
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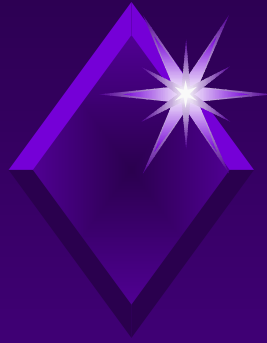
## *Imagine Yourself In This Situation...*

- ◆ Home alone
- ◆ Checking out your banking account
- ◆ Money under your Mattress
- ◆ Noise outside
- ◆ Mechanical device



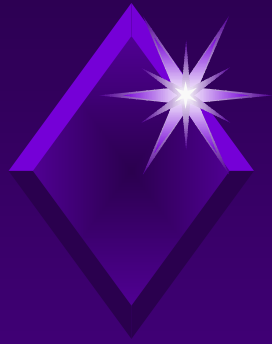
# *Motivations*

- ◆ The Internet is growing at an exponential rate.
- ◆ Electronic Commerce
- ◆ Banking Industry --> Electronic Banking



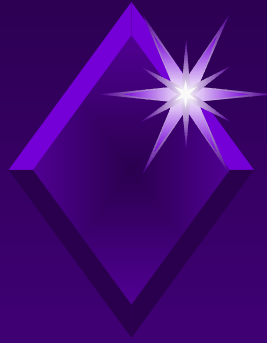
# *Ventures In Electronic Banking*

- ◆ Domestic
  - ◆ *Integrion Financial Network*
- ◆ International
- ◆ An Example of Disastrous Ventures



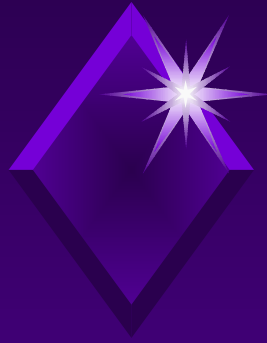
# *Concerns*

- ◆ Government
- ◆ Businesses
- ◆ Banks
- ◆ Individuals
- ◆ Technology



# *Attacks*

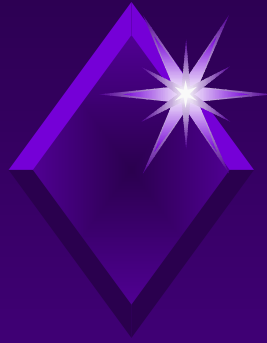
- ◆ Encryption algorithms
- ◆ Brute Force
- ◆ Bank's server--highly unlikely
- ◆ Client's personal computers--most likely
  - ◆ Planting viruses (e.g. Trojan Horse)



# *Software-Based Solutions*

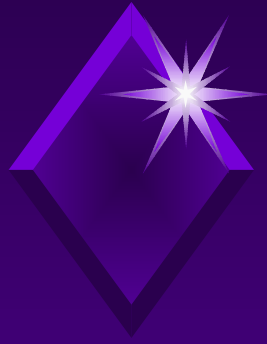
- ◆ Encryption
  - ◆ Conventional encryption schemes
  - ◆ Public key encryption
- ◆ Example of current encryption technology
  - ◆ SET





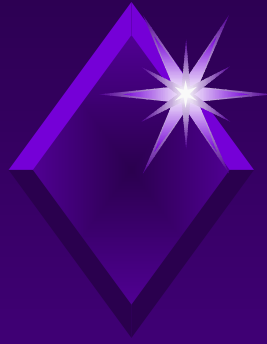
# *Secure Electronic Transaction (SET)*

- ◆ Global standard
- ◆ Ensure the privacy
- ◆ Provide the authentication
- ◆ A potential danger
- ◆ Certification Authority (CA)



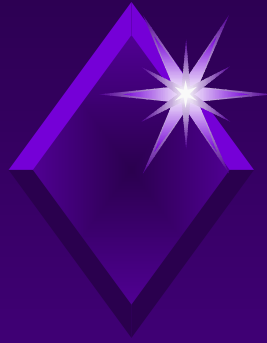
# *Hardware-Based Systems*

- ◆ Creates a secure, closed channel which is safe from unauthorized users
- ◆ Smartcard System
- ◆ MeChip



# *Privacy Technology*

- ◆ Assure consumers, merchants, and all transactions made remain confidential.
- ◆ E-cash
- ◆ Blind Signature



## *Conclusion*

- ◆ 30 million users worldwide
- ◆ E-Commerce
- ◆ E-Banking
- ◆ Integrated banking systems
- ◆ Worldwide acceptance is possible only if security problems are solved